



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/708,973

04/05/2004

Brian W. Cho

68.0476

2972

35204

7590

04/02/2008

SCHLUMBERGER RESERVOIR COMPLETIONS  
14910 AIRLINE ROAD  
ROSHARON, TX 77583

EXAMINER

SMITH, MATTHEW J

ART UNIT

PAPER NUMBER

3635

NOTIFICATION DATE

DELIVERY MODE

04/02/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

vsolis2@slb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/708,973	<b>Applicant(s)</b> CHO ET AL.	
	<b>Examiner</b> MATT J. SMITH	<b>Art Unit</b> 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,7,9,15-21,23-28,32-44,46-49,51-53 and 55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32-44,46-49,51-53 and 55 is/are allowed.
- 6) ☒ Claim(s) 1,7,9,15,16 and 21 is/are rejected.
- 7) ☒ Claim(s) 2,17-20 and 23-28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7, 9, 16, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Saurenman et al. (3066739).

Saurenman et al. disclose deploying a spring 19 downhole; energizing the spring before running the spring downhole, Fig. 3, including twisting the spring to reduce a diameter of the spring while maintaining the spring at the same axial length and twisting the spring from a direction opposite from a direction defined by a helical orientation of the spring (col. 3, lines 69-75; col. 4, lines 1-2); causing the spring to radially expand using energy stored in the spring without transferring additional energy to the spring (Fig. 2); and twisting the spring consistent with a helical orientation of the spring.

This reference also discloses forming a helical groove in a tubular member 19 to form a spring that expands in the well to form an annular barrier, Fig. 2, and releasing energy stored in the spring to cause the spring to radially expand to form an annular barrier in the well without the spring receiving additional energy to aid the expansion, Fig. 3.

This reference further discloses a spring 19 having a helical groove and energized before being run into the well, Fig. 3, and the spring radially expands to form an annular barrier in the well without receiving additional energy to aid the expansion,

Fig. 2.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saurenman et al. in view of Henshaw et al. (1459368).

Saurenman et al. disclose the invention substantially as claimed but not an elastomer sleeve around the spring.

Henshaw et al. present providing an elastomer sleeve 14a around a spring 15.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to place an elastomer sleeve around the Saurenman et al. spring, as presented by Henshaw et al., in order to protect the spring.

***Allowable Subject Matter***

Claims 32-44, 46-49, 51-53, and 55 are allowed.

Claims 2, 17- 20 and 23-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's arguments, see page 8, filed 26 December 2007, with respect to the rejection using Henshaw et al. have been fully considered and are persuasive. The 35 U.S.C. rejection of claims 1, 2, and 15 anticipated by Henshaw et al. has been withdrawn.

Noting applicants' discussion of the Saurenman et al. movement of collars 32, 33, the examiner points out this change in axial length occurs after the packer has expanded, i.e., when the packer is retracted. The examiner contends the Saurenman et al. packer meets the limitations prior to expanding the packer noting particularly the "packer element is not subjected to forces sufficiently to stretch ... the material".

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATT J. SMITH whose telephone number is (571) 272-7034. The examiner can normally be reached on T-Th, 8-3.

Art Unit: 3635

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard E. Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard E. Chilcot/  
Supervisory Patent Examiner, Art  
Unit 3635

MJS /M. J. S./  
Examiner, Art Unit 3635  
26 March 2008